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EXAMINER

GODBOLD, DOUGLAS

ART UNIT	PAPER NUMBER
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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,376	Applicant(s) REYNAR ET AL.	
	Examiner DOUGLAS C. GODBOLD	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080711, 20080829, 20081029, 20081120,</u> | 6) <input type="checkbox"/> Other: _____ |
| <u>20081226, 20090120.</u> | |

DETAILED ACTION

1. This Office Action is in response to correspondence filed September 15, 2008 in reference to application 10/780,376. Claims 1-20 are pending and have been examined.

Information Disclosure Statement

2. The Information disclosure statements filed 7/11/2008, 8/29/2008, 10/29/2008, 11/20/2008, 12/26/2008, and 1/20/2009 have been accepted and considered in this office action.

Response to Amendment

3. The amendment filed September 15, 2008 have been accepted and considered in this office action. Claims 1-10, and 12-17 have been amended and claims 18-20 have been added.

Response to Arguments

4. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claim 6 is objected to because of the following informalities: the word “actions” appears to be missing between words “performing” and “associated” as currently amended. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 6-14, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Horvitz (US Patent 6,415,304).

8. Consider claim 6, Horvitz teaches a method of automatically performing associated with recognized text or data strings (figure 3), the method comprising:

receiving a text string from a computer-generated document (step 300, column 5 lines 62-64);

passing the text string to a recognizer application (step 302, text is passed to text classification system [recognizer application]; column 6 lines 24-41);

setting, at the recognizer application, a property value identifying a desired action to be performed on the text string, wherein the property value comprises a parameter equal to the desired action that is to be automatically performed in response to

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recognizing the text string as belonging to a given semantic category (column 5 lines 10-26, example given where date and time for a proposed appointment is automatically extracted from an email);

recognizing the text string as belonging to a given semantic category (column 6 lines 11-41, text is categorized);

passing information from the recognizer application to a host application from which the text string is received, said information identifying the text string as belonging to the given semantic category and the property value associated with the given semantic category (Inherently, text classification must pass information back to host application, as a decision result remaining only in the classification system would be useless.);

at the host application, firing an event associated with an action application programmed to perform a desired action on the text string (window of scheduling program appears; column 5 lines 19-20.); and

in response to the fired event, causing the action application to perform the desired action on the recognized text string in the computer-generated document (the action is performed automatically, column 6 lines 50-53, also example of automatically entering appointment into calendar application from information is text, column 5 line 10-26.).

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9. Consider claim 7, Horvitz teaches the method of claim 6, wherein receiving the text string from the computer-generated document includes receiving the text string from the host application (text from electronic mail program, column 5 line 62-64).

10. Consider claim 8, Horvitz teaches the method of Claim 6, wherein passing information from the recognizer application to the host application includes passing a location of the text string in the computer-generated document from which the text string is received (Inherently, text classification must pass information back to host application, along with information about which text was classified, as a decision result remaining only in the classification system would be useless.).

11. Consider claim 9, Horvitz teaches the method of Claim 6, wherein firing the event associated with the action application programmed to perform the desired action on the text string includes firing a document level event (calendar appointment scheduled, column 5 line 10-26.).

12. Consider claim 10, Horvitz teaches the method of Claim 6, whereby wherein firing the event associated with the action application programmed to perform the desired action on the text string includes firing an application level event (window of scheduling program appears; column 5 lines 19-20.).

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13. Consider claim 11, Horvitz teaches the method of Claim 6, prior to causing the action application to perform the desired action on the recognized text string in the computer-generated document, causing the action application to trap the fired event from the host application (column 5 lines 10-24, scheduling program application is fired automatically from host).

14. Consider claim 12, Horvitz teaches a method of automatically performing actions associated with recognized data strings (figure 3), the method comprising:

receiving a data string from a host application entered into a computer-generated document (step 300, column 5 lines 62-64);

passing the data string to a recognizer application (step 302, text is passed to text classification system [recognizer application]; column 6 lines 24-41);

recognizing the data string as belonging to a given semantic category (column 6 lines 11-41, text is categorized);

passing information from the recognizer application to the host application, said information identifying the data string as belonging to the given semantic category (Inherently, text classification must pass information back to host application, as a decision result remaining only in the classification system would be useless.);

at the recognizer application, setting a property value identifying a desired action to be performed on the data string, wherein the property value comprises a parameter equal to the desired action that is to be automatically performed in response to recognizing the text string as belonging to a given semantic category (column 5 lines

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10-26, example given where date and time for a proposed appointment is automatically extracted from an email);

at the host application, calling an action application identified by the property value and programmed to performed the desired action on the data string (window of scheduling program appears; column 5 lines 19-20.); and

causing the action application to perform the desired action on the data string (the action is performed automatically, column 6 lines 50-53, also example of automatically entering appointment into calendar application from information is text, column 5 line 10-26.).

15. Consider claim 13, Horvitz teaches the method of Claim 12, wherein receiving the data string from the computer-generated document includes receiving the data string at the host application (text from electronic mail program, column 5 line 62-64), and wherein passing the text string to the recognizer application includes passing the data string from the host application to the recognizer application (text is passed to text classification system; column 6 lines 24-27).

16. Consider claim 14, Horvitz teaches the method of Claim 12, wherein passing information from the recognizer application to the host application includes passing the location of the data string in the computer-generated document from which the data string is received (Inherently, text classification must pass information back to host

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application, along with information about which text was classified, as a decision result remaining only in the classification system would be useless.).

17. Consider claim 18, Horvitz teaches the method of Claim 4, further comprising utilizing the contextual information by the recognizer application to perform additional recognition on the text string (column 9 line 55 discusses using an input with multiple dates and times).

18. Consider claim 19, Horvitz teaches the method of Claim 7, further comprising passing the text string from the host application to the recognizer application (step 302, text is passed to text classification system [recognizer application]; column 6 lines 24-41).

19. Consider claim 20, Horvitz teaches the method of Claim 1, further comprising:
receiving a subsequent text string from the computer-generated document
(column 9 line 55 discusses using an input with multiple dates and times);

passing the subsequent text string to the recognizer application (step 302, text is passed to text classification system [recognizer application]; column 6 lines 24-41);

recognizing the subsequent text string as belong to a subsequent semantic category associated with the given semantic category (column 9 line 55 shows multiple dates and times categorized as such); and

raising a recognition confidence level in response to detecting the subsequent text string as belonging to the subsequent semantic category associated with the given semantic category (column 7 lines 1-10 discuss using confidence measures to determine action).

Claim Rejections - 35 USC § 103

20. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

21. Claims 1-5, 15, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horvitz (US Patent 6,415,304) in view of Satyanarayanan (US Patent 6,510,504).

22. Consider claim 1, a method of automatically performing actions associated with recognized text strings (figure 3), the method comprising:

receiving a text string from a computer-generated document (step 300, column 5 lines 62-64);

passing the text string to a recognizer application (step 302, text is passed to text classification system [recognizer application]; column 6 lines 24-41);

recognizing the text string as belonging to a given semantic category (column 6 lines 11-41, text is categorized);

setting, at the recognizer application, a property value identifying a desired action to be performed on the text string, wherein the property value comprises a parameter equal to the desired action that is to be automatically performed in response to recognizing the text string as belonging to a given semantic category (column 5 lines 10-26, example given where date and time for a proposed appointment is automatically extracted from an email); and

performing at least one action on the recognized text string in the computer-generated document (the action is performed automatically, column 6 lines 50-53, also example of automatically entering appointment into calendar application, column 5 line 10-26.).

Horvitz does not specifically teach passing the recognizer application a pointer to an object model of a host application from which the text string is received. However, pointers are programming language data types commonly used to refer to the location of another item in memory.

Within object-oriented programming, as specifically taught by Satyanarayanan, pointers are regularly used to traverse string structures, and pointers to functions are used for binding methods (see column 5 lines 10-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the known technique of using pointers specifically taught by Satyanarayanan in Horvitz, since pointers improve performance for repetitive tasks, thus improving overall system performance.

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23. Consider claim 2, Horvitz teaches the method of Claim 1, wherein receiving the text string from the computer-generated document includes receiving the text string at the host application (text from electronic mail program, column 5 line 62-64); and

wherein passing the text string to a recognizer application includes passing the text string from the host application to the recognizer application (text is passed to text classification system; column 6 lines 24-27).

24. Consider claim 3, Horvitz teaches the method of claim 1, but does not specifically teach prior to performing one or more actions on the recognized text string, accessing the object model of the host application by the recognizer application via the pointer to the object model.

However, as specifically taught by Satyanarayanan, pointers are programming language data types commonly used to refer to the location of another item in memory. Within object-oriented programming, pointers are regularly used to traverse string structures, and pointers to functions are used for binding methods (see column 5 lines 10-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the known technique of using pointers specifically taught by Satyanarayanan in Horvitz, since pointers improve performance for repetitive tasks, thus improving overall system performance.

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25. Consider claim 4, Horvitz teaches the method of Claim 1, wherein performing at least one action on the recognized text string includes parsing the computer-generated document containing the text string for contextual information associated with the text string (in example given column 5 lines 10-26, contextual information such as date and time are parsed out in order to facilitate scheduling action).

26. Consider claim 5, Horvitz teaches the method of Claim 1, wherein performing at least one action on the recognized text string includes performing at least one action on the recognized text string without user action (action can be performed automatically without receiving user confirmation; column 6 lines 50-54).

27. Consider claims 15, 16 and 17, Horvitz discloses the method of claim 12, but Horvitz does not specifically teach whereby setting a property value identifying the desired action to be performed on the text string includes: at the recognizer application, depositing the property value into a property value data structure, passing the host application a pointer to the property value in the property value data structure, at the host application, receiving the pointer to the property value, at the host application, utilizing the pointer to the property value to identify the desired action to be performed on the text string in the computer-generated document and after the desired action is performed on the text string in the computer-generated document, deleting the property value from the property value data structure.

However, as specifically taught by Satyanarayanan, pointers and property values are common programming language data types; Pointers are commonly used to refer to the location of another item in memory, and, when used in object-oriented programming, are regularly used to traverse string structures. Property values, generally encode as arrays, are commonly used to define a function or characteristic of an object that manifests through that objects behavior (see column 5 lines 10-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to at the recognizer application, deposit the property value into a property value data structure, pass the host application a pointer to the property value in the property value data structure, at the host application, receive the pointer to the property value, at the host application, utilize the pointer to the property value to identify the desired action to be performed on the text string in the computer-generated document and after the desired action is performed on the text string in the computer-generated document, delete the property value from the property value data structure in Horvitz, since one of ordinary skill has good reason to pursue the options within his or her technical grasp, in order to achieve the predictable result of quickly and efficiently instructing the host application of the action to perform, while minimizing memory usage.

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS C. GODBOLD whose telephone number is (571)270-1451. The examiner can normally be reached on Monday-Thursday 7:00am-4:30pm Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCG

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626